

Amendments to the Claims

1. *(Currently Amended)* A method for distributing candidate motion vectors, the method comprising:
 - dividing a picture frame ~~(110)~~ into a plurality of segments ~~(120)~~, each segment ~~(120)~~ comprising a plurality of pixel blocks ~~(130)~~;
 - measuring local motion complexity for each segment ~~(120)~~; and
 - assigning a number of candidate motion vectors to pixel blocks ~~(130)~~ within each segment ~~(120)~~ based on the measured local motion complexity.
2. *(Currently Amended)* The method of claim 1, wherein the step of measuring comprises:
 - determining a sum-of-absolute differences between pixel blocks ~~(130)~~ of the picture frame ~~(110a)~~ and corresponding pixel blocks ~~(130)~~ of an adjacent frame ~~(110b)~~; and
 - summing the measured sum-of-absolute differences associated with of pixel blocks ~~(130)~~ within each segment ~~(120)~~.
3. *(Currently Amended)* The method of claim 2, wherein the step of assigning comprises using a distribution function configured to assign the number of candidate vectors based on the measured local motion complexity of each segment ~~(120)~~.
4. *(Original)* The method of claim 3, wherein the distribution function is based on a maximum, minimum and average of the measured sum-of-absolute differences of the segments.
5. *(Original)* The method of claim 4, wherein the distribution fuction is further based on predetermined values for a maximum, minimum and average number of candidate vectors per block.
6. *(Currently Amended)* The method of claim 1, further comprising performing motion estimation on the pixel blocks ~~(130)~~ using the number of candidate vectors assigned to each pixel block ~~(130)~~.

7. *(Currently Amended)* A system for distributing candidate vectors, the system comprising:
- means for dividing a picture frame (110) into a plurality of segments (120), each segment (120) comprising a plurality of pixel blocks (130);
 - means for measuring local motion complexity for each segment (120);
 - and
 - means assigning a number of candidate motion vectors to pixel blocks (130) within each segment (120) based on the measured local motion complexity.
8. *(Currently Amended)* The system of claim 7, wherein the means for measuring comprises:
- means for determining a sum-of-absolute differences between pixel blocks (130) of the picture frame (110a) and corresponding pixel blocks (130) of an adjacent frame (110b); and
 - means for summing the measured sum-of-absolute differences associated with of pixel blocks (130) within each segment (120).
9. *(Currently Amended)* The system of claim 8, wherein the means for assigning uses a distribution function configured to assign the number of candidate vectors based on the measured local motion complexity of each segment (12).
10. *(Original)* The system of claim 9, wherein the distribution function is based on a maximum, minimum and average of the measured sum-of-absolute differences of the segments.
11. *(Original)* The system of claim 10, wherein the distribution function is further based on predetermined values for a maximum, minimum and average number of candidate vectors per block.
12. *(Currently Amended)* The system of claim 7, further comprising means for performing motion estimation on the pixel blocks (130) using the number of candidate vectors assigned to each pixel block (130).